AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

Claims 1-10 (cancelled).

11. (Previously presented) A scheduling system for generating a schedule of tasks for a project, at least one task having associated resources utilized to perform the task, the system comprising:

a load leveler subsystem configured to receive data representative of the tasks for the project, and to generate a proposed schedule of the tasks responsive to fluctuations of resources utilized to perform the tasks;

a cost estimator subsystem communicatively coupled to the load leveler subsystem to evaluate the proposed schedule to estimate a cost associated therewith; and

a cost minimizer communicatively coupled to the cost estimator for modifying the proposed schedule responsive to the resource fluctuations and its associated cost;

wherein the load leveler subsystem is further configured to output data representative of the modified proposed schedule of tasks for the project.

12. (Previously presented) The system of claim 11, wherein the cost estimator is implemented using dynamic programming.

13. (Previously presented) The system of claim 11, wherein the cost estimator is implemented using linear programming.

14. (Previously presented) The system of claim 11 wherein the load leveler further comprises a makespan minimizer configured to determine a minimum length schedule of tasks that uses at most a maximum number of resources to complete the tasks, at least one of the tasks subject to at least one constraint on the location of the task in the schedule.

15. (Previously presented) The system of claim 14 wherein the makespan minimizer uses a schedule packing algorithm.

16. (Previously presented) The system of claim 11, wherein the cost minimizer subsystem comprises an incremental improvement engine configured to determine for each of a plurality of tasks, each task having a plurality of possible start times, a start time for the task that results in a lowest estimated cost for the proposed schedule.

17. (Previously presented) A computer-implemented method for generating a schedule of tasks for a project, each task having zero or more associated resources, the method comprising:

receiving data representative of tasks and resources for a project;

generating a proposed schedule of tasks for the project responsive to fluctuations of resources utilized to perform the tasks;

evaluating the proposed schedule to estimate an associated cost;

modifying the proposed schedule responsive to the resource fluctuations and the cost; and

outputting the modified proposed schedule for the project.

18. (Previously presented) The computer-implemented method of claim 17, wherein evaluating the proposed schedule to estimate the associated cost further comprises using a dynamic programming model.

19. (Previously presented) The computer-implemented method of claim 17, wherein evaluating the proposed schedule to estimate the associated cost further comprises using a linear programming model.

20. (Previously presented) The computer-implemented method of claim 17, wherein generating the proposed schedule includes associating a limitation with each of the resources and producing the proposed schedule responsive to each limitation.

21. (Previously presented) The computer-implemented method of claim 20, wherein generating the proposed schedule includes iteratively reducing the limitation for one of the resources and load-leveling the resources.

22. (Previously presented) The computer-implemented method of claim 17, wherein evaluating the proposed schedule includes determining costs associated with the resource fluctuations.

23. (Previously presented) The computer-implemented method of claim 22, wherein the costs associated with the resource fluctuations include at least one of the group of resource acquisitions costs, resource disposition costs, incremental costs for resource over-utilization, and incremental costs for resource under-utilization.

24. (Previously presented) The computer-implemented method of claim 23, wherein resource acquisition costs include a hiring cost.

25. (Previously presented) The computer-implemented method of claim 23, wherein resource disposition costs include a firing cost.

26. (Previously presented) The computer-implemented method of claim 23, wherein incremental costs for resource over-utilization include an overtime cost.

27. (Previously presented) The computer-implemented method of claim 23, wherein incremental costs for resource under-utilization include an idle resource cost.

28. (Previously presented) The computer-implemented method of claim 17, wherein generating the proposed schedule comprises identifying an admissible window in the proposed schedule for each task and iteratively placing each task within the proposed schedule responsive to the admissible window, a priority of the task, and a cost of at least part of the proposed schedule having the task placed therein.

29. (Previously presented) The computer-implemented method of claim 17, wherein evaluating the proposed schedule comprises examining one of the tasks to estimate

the cost associated with the proposed schedule responsive to moving the task within a window describing allowable locations of the task in the schedule.

30. (Previously presented) The computer-implemented method of claim 17, wherein the resource fluctuations are determined by using a profile for each of the resources.

31. (Withdrawn) A method for optimizing a location of one of a plurality of tasks in a schedule for a project to minimize a cost of the schedule, the method comprising:

receiving data describing the task;

determining at least one valid start time in the schedule for the task;

estimating the cost of the schedule for each valid start time for the task;

selecting the valid start time in response to the estimated cost of the schedule; and

associating the selected start time with the task; and

outputting the selected start time of the task;

wherein the task uses at least one resource, each resource having a cost, and estimating the cost of the schedule for each valid start time for the task further comprises:

determining for each start time a cost of each resource used by the task; and

estimating the cost of the schedule for each start time by summing the cost of each resource used by the task and other costs in the schedule.

32. (Withdrawn) The method of claim 31 wherein a dynamic programming model is utilized to estimate a cost of each resource used by a task.

33. (Withdrawn) The method of claim 31 wherein a linear programming model is utilized to estimate a cost of each resource used by a task.

34. (Previously presented) A scheduling system for generating a schedule of tasks for a project, at least one task having associated resources utilized to perform the task, the system comprising:

a cost estimator subsystem configured to receive data representative of a proposed schedule of tasks for the project, to evaluate the proposed schedule of the tasks, and to estimate a cost of the project associated with the proposed schedule; and

a cost minimizer communicatively coupled to the cost estimator and configured to modify the proposed schedule responsive to the resources utilized to perform the tasks and the estimated cost of the project and to output data representative of the proposed schedule.

35. (Previously presented) The scheduling system of claim 34, wherein the cost estimator is implemented using dynamic programming.

36. (Previously presented) The scheduling system of claim 34, wherein the cost estimator is implemented using linear programming.